The Dollar's Vulnerability and the Implications for National Security

A Monograph

by

MAJ Neil C. Everingham

U.S. Army

School of Advanced Military Studies

United States Army Command and General Staff College

Fort Leavenworth, Kansas

AY 2010

REPORT DOCUMENTATION PAGE

Form Approved
OMB No. 074-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	12-06-2009	January 2010 - December 2010

4. TITLE AND SUBTITLE

The Dollar's Vulnerability and the Implications for National Security

5. FUNDING NUMBERS

6. AUTHOR(S)
MAJ Neil C. Everingham, U.S. Army

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

School of Advanced Military Studies
250 Gibbon Ave.
Fort Leavenworth, KS 66027-2314

8. PERFORMING ORGANIZATION REPORT NUMBER

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

11. SUPPLEMENTARY NOTES

12a. DISTRIBUTION / AVAILABILITY STATEMENT

Approved for Public Release: Distribution is Unlimited

12b. DISTRIBUTION CODE

13. ABSTRACT ***(Maximum 200 Words)***

The United States enjoys a significant benefit from the dollar's status as the predominant international currency. These financial benefits translate into increased state power through autonomy and the ability to shape the rules of the international system. In exchange, the rest of the world benefits from having a relatively safe and liquid investment for its capital and reduced transaction costs for international trade. Because of the benefits to state power, ensuring that the dollar remains the leading international currency is a national security issue for the United States. Based on economic theory and an analysis of the last transition of leading international currencies between the sterling and the dollar, there are emerging vulnerabilities that threaten the dollar's status. Many are long-term issues that do not present an immediate threat to national security; however, increasing reliance on foreign sources to finance United States debt has created a potentially dangerous situation. Analysis of some of the major holders of United States Treasury Securities shows that the nations that are financing United States deficit spending face significant economic issues of their own. A crisis in those nations could result in a run on the dollar, which could temporarily paralyze the United States Government, and poses long term implications to national security as the nation loses its relatively inexpensive source of foreign finance.

			15. NUMBER OF PAGES
			49
			16. PRICE CODE
17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
UNCLASS	UNCLASS	UNCLASS	

SCHOOL OF ADVANCED MILITARY STUDIES

MONOGRAPH APPROVAL

MAJ Neil C. Everingham

Title of Monograph: The Dollar's Vulnerability and the Threat to National Security

Approved by:

_____ Monograph Director
David A. Anderson, Ph.D.

_____ Second Reader
Joseph S. McLamb, LTC, IN

_____ Director,
Wayne W. Grigsby, Jr., COL, IN School of Advanced Military Studies

_____ Director,
Robert F. Baumann, Ph.D. Graduate Degree Programs

Abstract

The Dollar's Vulnerability and the Implications for National Security by MAJ Neil C. Everingham, U.S. Army, 49 pages.

The United States enjoys a significant benefit from the dollar's status as the predominant international currency. These financial benefits translate into increased state power through autonomy and the ability to shape the rules of the international system. In exchange, the rest of the world benefits from having a relatively safe and liquid investment for its capital and reduced transaction costs for international trade. Because of the benefits to state power, ensuring that the dollar remains the leading international currency is a national security issue for the United States. Based on economic theory and an analysis of the last transition of leading international currencies between the sterling and the dollar, there are emerging vulnerabilities that threaten the dollar's status. Many are long-term issues that do not present an immediate threat to national security; however, increasing reliance on foreign sources to finance United States debt has created a potentially dangerous situation. Analysis of some of the major holders of United States Treasury Securities shows that the nations that are financing United States deficit spending face significant economic issues of their own. A crisis in those nations could result in a run on the dollar, which could temporarily paralyze the United States Government, and poses long term implications to national security as the nation loses its relatively inexpensive source of foreign finance.

Table of Contents

FIGURES

TABLES

Introduction

The decline of the United States as a great power has been a popular topic with pundits for years. The same is true about the United States dollar and its role as the world's dominant international currency. This is in part because, historically, the loss of such currency status has coincided with the loss of great power status.[1] These two interrelated issues have become of increasing concern recently due to rising levels of United States deficit spending and growing debt burden. The concern is whether the dollar's status, and by extension, the United States' international role are still viable as its debt approaches record levels in absolute terms.

There are two opposing thoughts on the potential decline of the United States' international leadership that help shape this examination. Paul Kennedy, the J. Richardson Dilworth professor of British history at Yale University, wrote in 1987 that the transition between great powers was a slow process that centered on the incumbent's struggle to balance short-term national security demands and long-term economic interests.[2] The inability to do so can lead to high levels of debt undermining overall economic viability. Niall Ferguson, the Laurence A. Tisch Professor of History at Harvard University and the William Ziegler Professor of Business Administration at Harvard Business School, disagrees with Kennedy's model of a gradual rise and fall. Instead, he suggests great powers are complex adaptive systems that collapse as the result of sudden and catastrophic malfunctions, caused by their inability to finance public debt that accumulates due to high levels of deficit spending.[3] The United States has avoided this problem, in part, because of the dollar's international role. Two principle benefits of the dollar's

---

[1] Jeffrey A. Frankel, "Still the Lingua Franka: The Exaggerated Death of the Dollar" *Foreign Affairs* 74, no. 4 (July 1995), 12.

[2] Paul Kennedy, *The Rise and Fall of the Great Powers* (New York: Vintage Books, 1989), 536, 540.

[3] Niall Ferguson, "Complexity and Collapse: Empires on the Edge of Chaos," *Foreign Affairs* 89, no. 2 (March/ April 2010): 20, 30.

special status as the leading international currency are a regular inflow of foreign financing that keeps the United States interest payments on its debt low and its current and capital accounts in balance, thus enabling relatively large and sustainable deficit spending.[4]

The truth is probably found somewhere in between these two positions. Conditions that enable one major event to tip the balance against a great power are likely set gradually over time. The recent calls for an alternative to the dollar as the world's central international currency by China, Russia, Brazil, and some OPEC nations, coupled with increasing pressure from large vote-carrying members of the International Monetary Fund (IMF) for the United States to reduce its voting shares, provides an indication that these conditions may have changed in a meaningful way.[5]

Regardless of whether other nations are calling for change, if the structural conditions are not right, the dollar and United States leadership are in no real danger. However, if Ferguson is correct, and the system is vulnerable to collapse, the consequences for American power will be significant and immediate. The problem of assessing the likelihood of such a triggering event lies in predicting the future; it just cannot be done reliably. Nassim Nicholas Taleb, refers to such events as 'black swans,' events which are rare, have extreme impact, and are only retrospectively predictable.[6] Collapse of great powers certainly fit this description. They do not happen often, they have tremendous societal implications, and they are hard to predict. One only has to look at the fall of the Soviet Union and its aftermath for proof of this, which Professor Kennedy himself was unable to predict in *The Rise and Fall of Great Powers*, published just two year before the collapse.

---

[4] Congressional Research Service, *Dollar Crisis: Prospects and Implications*, by Craig K. Elwell, RL34311 (Washington, DC: Government Printing Office, January 8, 2008), 6.

[5] Gregory Zerzan, "Dollar is a National Security Issue," *The Washington Times*, October 16, 2009.

[6] Nassim Nicholas Taleb, *The Black Swan* (New York: Random House, 2007), xviii.

The purpose of this study is not to predict the future, but to identify looming historical vulnerabilities that might lead to a plausible 'black swan' that could lead to the demise of the United States dollar, undermining United States power, and compromising its national security. This paper uses a comparative case study analysis between the British sterling's fall from the predominant international currency following World War II and the current status of the dollar to identify the dollar's vulnerabilities which appear to extend to Japan and the European Union whose governments are a major source of financing for the United States budget deficit. The paper further tests the decline of great power theories of Kennedy and Ferguson.

International Currencies – The Theory

In order to identify and understand the vulnerabilities to the status of the United States dollar, it is necessary to understand the purpose of an international currency and the characteristics that make a particular currency appropriate for that role. It is useful to begin that examination with a brief history of currency that details the problems the current system evolved to resolve. This will help identify the purpose of a modern international currency from which it is possible to derive links to state power and measures to evaluate the potential vulnerability of the dollar.

Rise of International Currencies

The history of international currencies demonstrates that trade and financing war are central issues to the rise of international currencies. Medieval and early modern governments struggled to establish stable relationships between coins made from different metals, which often

resulted in debasement and depreciation.[7] Thus, exchange rate and currency convertibility problems are not new phenomena, nor is the importance to money of retaining its value.

The experience of Spain during the early years of American colonization illustrates the importance of money retaining its value. The Spanish dollar could be considered the first global currency, following the discovery of substantial silver reserves in the sixteenth century, as it was used to finance war and expanding trade between Europe and Asia.[8] Unfortunately, Spain mined so much of it that it suffered massive devaluation as they failed to understand that value is not absolute.[9] Therefore, maintaining value and limiting inflation were also problems in the era of coined money.

While the Spanish relied on silver, the evolution of paper money occurred to the north. In 1609, the Amsterdam Exchange Bank began to resolve merchants' problems associated with trade across multiple currencies by allowing them to set up accounts denominated in a standardized currency. Commercial transactions were carried out by checks or direct debits, eliminating the need for coins to be physically involved. The bank maintained a 100% ratio of deposits to reserves, protecting it from a bank run, but preventing it from creating credit.[10] The innovation of lending occurred in Stockholm in 1657. The Stockholms Banco implemented the practice of fractional reserve banking, by loaning amounts in excess of its metallic reserves.[11] This introduced the dynamic of investor confidence into the financial system.

The innovation of the banknote built on the foundation of investor confidence was another key step in the evolution of the modern financial system. Britain created the Bank of

---

[7] Niall Ferguson, *The Ascent of Money: A Financial History of the World* (New York: Penguin Books, 2009), 26.

[8] Ibid.

[9] Ibid., 27.

[10] Ibid., 49-50.

[11] Ibid., 50.

England in 1694, converting government debt into shares of the bank to assist with war financing and within fifty years, the bank had established a monopoly on the issue of banknotes, allowing trade without the need for both parties to have accounts with the bank.[12] In addition, the Bank of England continued to excel in its role as a foundation of war finance. In the eighteenth and nineteenth centuries, the British system of war finance, based on government and credit institutions was the most effective in Europe, allowing it to subsidize a series of coalitions to defeat Napoleonic France.[13]

This brief history illustrates that over time problems of commerce and war financing have driven the creation and evolution of international currencies. The problems of establishing and maintaining exchange rates and retaining value led to a system where paper began to represent stores of precious metal. Over time, this system became one where banks balanced profit against the risk of a run, seeking to avoid a crisis of confidence in the bank's ability to meet its obligations.[14] Confidence of this type remains critical to the success of the current international financial system and the nations that provide this system's reserves.

This leads into the modern purpose of an international currency. Barry Eichengreen, Professor of Economics and Political Science at the University of California, Berkeley, states that the central purpose today is "as a store of value for central banks' and governments' international reserves."[15] While this may be the central role of today's international currencies, there are two other functions highlighted by Paul Krugman, professor of Economics and International Affairs at Princeton University. These are units of account denominating international obligations and

---

[12] Ibid.

[13] John A. Lynn, "Nations in Arms 1763-1815," In *The Cambridge Illustrated History of Warfare*, ed. Geoffry Parker, 186-213 (Cambridge: Cambridge University Press, 2008), 212-213.

[14] Ferguson, *The Ascent of Money*, 53.

[15] Barry Eichengreen, "Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition" (Lecture, Economic History Society, Leicester, UK, April 10, 2005), 2.

pricing commodities, and media of exchange for transactions between other currencies.[16] The United States dollar is currently the primary international currency fulfilling each of these roles, which provide financial and security benefits. Britain's ability to leverage its more efficient financial foundation to defeat Napoleonic France indicates that a financial predominance translates into national power.

Financial Benefit and State Power

International financial challenges in the 1970s highlighted a political conflict over the role of the dollar as the world's primary international currency. The French believed that this special status allowed the United States the unique ability to run persistent balance-of-payment deficits, which translated into an asymmetric advantage in international relations, termed an 'exorbitant privilege.[17] The existing literature on the exorbitant privilege contains disagreement over the benefits the United States enjoys due to the dollar's status. The disagreement is not over the existence of a benefit, but rather over the magnitude of this privilege.

The McKinsey Global Institute finds that the benefit is relatively modest. Their analysis evaluates the benefits under two ill-defined conditions, 'normal' and 'crisis.' They use the 2007 - 2008 period as 'normal' and 2009 as a 'crisis.' Their study found that in a 'normal' year the direct financial benefit to the United States is 0.3 - 0.5% of GDP, or $40 to $70 billion.[18] The benefit was even lower in a 'crisis' year, worth only 0.0 - 0.2% of GDP, or $5 to $25 billion.[19] In this case, appreciation in the dollar's value due to large inflows of foreign capital seeking a safe

---

[16] Paul Krugman, "Vehicle Currencies and the Structure of International Exchange," *Journal of Money, Credit, and Banking*, 12, no. 3, (August 1980): 513.

[17] Thomas Oatley, *International Polictical Economy: Interests and Institutions in the Global Economy* (New York: Pearson Education, Inc., 2008), 231.

[18] McKinsey Global Institute, *An Exorbitant Privilege? Implications of Reserve Currencies for Competitiveness* (Discussion Paper, Washington DC: McKinsey & Company, December 2009), 18.

[19] Ibid., 23.

investment is the primary reason for the reduced benefit. In either case, this study represents the lower limit of the benefit enjoyed by the United States. This is due to its focus on direct financial benefits.

Gourinchas and Rey offer an interpretation of the 'exorbitant privilege' that accounts for both direct and indirect benefits. These indirect benefits derive from the United States' ability to borrow money at a relatively low interest rate from foreign investors as well as from capital gains generated by depreciation of the dollar. The United States can then use some of the borrowed capital for higher-yielding Foreign Direct Investment providing a net financial benefit. They calculate that from 1973 the average benefit to the United States has been 3.32% of GDP.[20] This is more than six times larger than the estimate based solely on direct financial benefit and represents the upper limit of the benefit enjoyed by the United States.

The European Central Bank provides support for the conclusions drawn by Gourinchas and Rey. In a comparative study of the economies of 49 countries, they conclude that the United States did receive a benefit of over 3.3% of GDP for the period from 1981 -2004.[21] Their conclusion, however, indicated that most of this gain was due to capital gains and that two other nations, Japan and Switzerland, realized similar yields on Foreign Direct Investment. This has two important consequences. First, the benefit from capital gains due to dollar devaluation is not likely to be sustainable indefinitely as it comes directly at the expense of those nations that hold the dollar as a reserve. Second, it highlights that gaining from Foreign Direct Investment is not the sole domain of a nation whose currency serves as the primary international reserve. Based on

---

[20] Pierre-Oliver Gourinchas and Helene Rey, "From World Banker to World Venture Capitalist: US External Adjustment and the Exorbitant Privilege" (Paper presented at the National Bureau of Economic Research conference on G7 current account imbalances, Cambridge, MA, August 2005), 10.

[21] European Central Bank, "Excess Returns on Net Foreign Assets: The Exorbitant Privilege From a Global Perspective," (European Central Bank Working Paper NO. 1158, Frankfurt, Germany, February 2010), 39.

this last point, it is possible for the dollar to be replaced as the world's dominant reserve currency without losing all of the associated benefits.

Having established that there is a financial benefit associated with issuing the predominant international currency, the question becomes how that translates into state power. Benjamin J. Cohen, Professor of Political Science at the University of California, Santa Barbara, recently explored this issue. He identifies two operational dimensions of state power as the ability to control the behavior of others and the ability to act unilaterally.[22] These dimensions operate within a framework of two kinds of state power in a political economy, relational and structural. Relational being the ability to get another power to do something they would not normally do, while structural power is the ability to shape the framework of international relations.[23] Clearly, both types of power are important, but structural, by allowing a nation greater influence in creating future systems, is the more beneficial. Cohen finds that the store of value role of an international currency increases the issuing nation's autonomy, thus increasing its relational power.[24] This increased international influence is relative to the size of the role played by a nation's currency. The more significant structural power derives from a currency's international dominance of all three roles of money.[25] Thus, all nations whose currency serves as an international reserve enjoy a proportional increase in international autonomy and influence. However, the nation whose currency dominates all three roles has the advantage of shaping the rules of international relations. It follows that the dollar's central place in all three roles

---

[22] Benjamin J. Cohen, "Currency and State Power," Presented at a conference to honor Stephen D. Krasner, Stanford University, (December 4, 2009): 4.

[23] Susan Strange, *States and Markets, (*(London: Pinter Publishers, 1994): 24-25.

[24] Cohen, "Currency and State Power," 21.

[25] Ibid.

contributes to the foundation of United States international power. Therefore, preserving the dollar's predominance should be treated as a national security issue.

Of course, the benefits derived from the existence of a dominant currency are not one-sided. The issuer of that currency does receive financial benefits as well as an increase in state power. However, the rest of the international community receives benefits as well. If they did not, a new currency would become dominant or the system would cease to exist. Examining the theory behind these three roles provides measures to evaluate the vulnerability of the dollar.

A Store of Value

If the central role of a modern international currency is to serve as a store of value for central banks and government's international reserves, then this should be the most important criteria of evaluation. The expectation for anything to serve as a store of value is straightforward. Investors expect that any money put into the investment, in this case, a currency, is easily retrievable for no less than the value of the initial investment. If the purpose is to identify vulnerabilities to a dominant currency, then the question then becomes what causes a currency to lose its value and what are the economic fundamentals that precede the loss. Understanding these fundamentals will highlight the key variables for evaluation of a currency as a store of value.

Menzie Chinn, Professor of Public Affairs and Economics at the University of Wisconsin, and Jeffrey Frankel, Professor of Capital Formation and Growth at Harvard's Kennedy School, consider investor confidence in the value of the currency to be one of four key determinants of a currency's fit as an international reserve.[26] Within this category, they highlight two important criteria, inflation and exchange-rate stability. These criteria answer the question

[26] Menzie D. Chinn and Jeffrey A. Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency" (National Bureau of Economic Research working paper, Cambridge, MA, April 2008), 8.

regarding how a currency loses its value. Examination of each in turn delineates the proximate causes that provide appropriate measures for evaluating a currency as a store of value. First, it is necessary to specify what the word inflation means.

Over time, the definition of inflation has evolved and its commonly understood meaning has changed. Initially, it referred to an expansion of money supply without a matching expansion in reserves or production output.[27] This reduced the value of the currency and resulted in price increases. This is what happened to the Spanish dollar as Spain flooded Europe with silver from the new world. Over time, the connection between the word inflation and the supply of money has been broken, leaving inflation redefined as a description of prices.[28] Using this price based definition, inflation can also result from events such as commodity shortages, like those caused by the oil embargos of the 1970s. While prices rise from the impact of commodity shortfalls, there is no direct effect on the money supply, therefore, this price inflation does not have a direct impact on the value of a currency with respect to obligations to central banks and foreign governments. It is the first meaning of inflation that concerns Chinn and Frankel. They specifically cite inflation associated with the fear of using it as a tool for reducing debt.[29] This is possible for a government that has debt not indexed to inflation, and that is denominated in its own currency.[30] Logically, such a move should be limited to a situation in which the government has to choose between defaulting on obligations or expanding the money supply as using this policy to reduce a sustainable level of debt would undermine future opportunities to borrow.

---

[27] Michael F. Bryan, "On The Origin and Evolution of the Word Inflation," *Federal Reserve Bank of Cleveland*,(October 15, 1997): 1.

[28] Ibid., 4.

[29] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 9.

[30] Joshua Aizenmann and Nancy Marion, "Using Inflation to Erode the U.S. Public Debt," National Bureau of Economic Research working paper w15562, Cambridge, MA, (December 2009): 5.

There is, however, evidence in the history of the United States that indicates this is a legitimate concern. Carmen M. Reinhart, Professor of Economics and Director of the Center for International Economics at the University of Maryland, and Kenneth S. Rogoff, the Thomas D Cabot Professor of Public Policy at Harvard University, find a postive correlation between rising inflation and a high gross government debt to GDP ratio, defined as higher than 90%, in the United States.[31] Therefore, the ratio of gross government debt to GDP should be a key factor in evaluating the fit of an international currency for a leading reserve role. This fits with the logic that a nation sould only resort to expansionary fiscal policy in times of desperation. There are issues with this study that should be addressed before moving on to other potential measures.

First, it should be noted that gross government debt is not the only way to measure a nation's debt. The IMF defines gross debt as "consisting of all liabilities that require payment or payments of interest and/or principal by the debtor to the creditor at a date or dates in the future. This includes debt liabilities in the form of SDRs, currency and deposits, debt securities, loans, insurance, pensions and standardized guarantee schemes, and other accounts payable."[32] This measure includes debt the government owes to itself, or intragovernment debt, which is important in the context of inflation. This is because a government can expand its money supply without a corresponding increase in GDP by issuing debt to itself. If abused, such actions may undermine investor confidence in a nations currency as a store of value. An alternative measure is net government debt. The problem with this measure is that it is not uniformly reported across nations and most nations exclude intragovernment debt from their reports.[33] The IMF states that

---

[31] Carmen M. Reinhart and Kenneth S Rogoff, "Growth in a Time of Debt," National Bureau of Economic Research working paper15639, Cambridge, MA (January 2010): 9.

[32] International Monetary Fund "World Economic Outlook Database April 2010," https://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx (accessed June 3, 2010).

[33] International Monetary Fund, *Fiscal Monitor: Navigating the Fiscal Challenges Ahead* (Washington, DC: International Monetary Fund, 2010), 15.

both are important measures, but that gross debt is a better measure of rollover risk and uses this measure to evaluate the impact of government debt on interest rates and growth.[34]

Another potential concern is that the findings are a correlation. It is not clear that high debt to GDP ratios cause inflation. However, the concern is the currency's utility as a store of value to investors. In this context, either inflation or high levels of debt might give investors pause. The fact that there is a correlation between these two factors amplifies potential vulnerabilities.

Fear over inflating debt away is not the only reason investors would desire low inflation as a characteristic in a reserve currency nation. Barry Eichengreen also cites inflation as a criterion, noting that when nations peg their currency to another, they experience similar inflationary trends and that holding reserves in that currency then creates stability in their domestic purchasing power.[35] Since a country's domestic inflation is likely to mirror that of the nation of its major reserve holdings, it is logical that low inflation should be a characteristic of a candidate for reserve currency status.

Leroy O. Laney, Professor of Finance and Economics at Hawaii Pacific University, indicates that there is also a link between inflation and exchange-rate depreciation, which is the second way a currency can lose value. He maintains that higher inflation leads to exchange-rate depreciation as well as increased volatility.[36] This indicates that expansionary monetary policy would also result in depreciation of the currency through market mechanisms. The cumulative effects would seriously erode the value of investments in the currency. It should be noted that Dr.

---

[34] Ibid., 15, 56.

[35] Barry Eichengreen, "The Dollar Dilema: The World's Top Currency Faces Competition," *Foreign Affairs* 88, no. 5 (September/October 2009): 56.

[36] Leroy O. Laney, "The Reserve Role of the Dollar and the United States as Net Debtor," *Economic Review - Federal Reserve Bank of Dallas*, September 1998: 2.

Laney's paper is written in the context of a floating exchange-rate system, which warrants a brief explanation.

Thomas Oatley provides an overview of the various currency exchange-rate systems.[37] In general, the floating exchange-rate system sits on the opposite end of the continuum from the fixed exchange-rate system in the foreign exchange market, which is the market for trading the world's currencies. These systems determine the rules regulating appreciation and depreciation of national currencies. In a fixed exchange-rate system, nations fix their currency's value to a standard such as gold or another currency and use reserves to buy and sell currencies to maintain the fixed value. In a floating exchange-rate system, no such fixed value is established and the market forces of supply and demand determine currency appreciation and depreciation.

Movements in the foreign exchange market are intended to adjust prices of goods traded between nations fixing imbalances that emerge in a nation's balance of payments. Oatley again provides a good explanation of the system, which is abbreviated here.[38] The balance of payments records all international transactions between a nation and the international community and is made up of the current account and the capital account. The current account records all nonfinancial transactions in the categories of trade in goods, trade in services, income flow, and unilateral transfers. The capital account records financial flows between a nation and the international community based on assets a nation owns abroad and foreign owned assets in that country. A nation's current account must be balanced by its capital account. When they are not, movements in the foreign exchange market adjust the imbalance. Under a fixed exchange-rate regime, the governments involved effect the adjustment by buying and selling currency to avoid depreciation of the currency whose issuing nation has the deficit, thus changing the supply of

---

[37] Oatley, *International Polictical Economy*, 216-217.

[38] Ibid., 218-225.

money and relative prices in the two countries. Under a floating exchange-rate regime, the adjustment is made through market mechanisms resulting in depreciation of the currency whose issuing nation has the deficit. In both cases, the adjustment is made as prices fall in the nation with the deficit and rise in the country with the surplus. As consumers respond to these prices, the trade imbalance will adjust as the relative cost of imports and exports alters the flow of goods between the countries.

The concern here is how this affects the utility of a currency as a store of value. From the discussion above, under a floating exchange-rate system, the issue is depreciation, which can result from carrying a trade deficit. However, for an international reserve currency the reality is more complex. According to the Congressional Research Service (CRS), there are five determinants for exchange-rate movement under the current floating exchange-rate system. These are rate of return, expected path of the currency, the need for portfolio diversification, the size and liquidity of the currency market, investors seeking safe haven, and official holdings.[39] What this list illustrates is that while an international currency in the reserve role is expected to be a store of value, it is also an investment through which investors seek to balance risk and reward. It is difficult to quantify investor motivation, but analysis does highlight some important indicators.

The CRS identifies relatively high and sustained levels of economic growth as a positive linkage between rate of return and investors seeking safe haven, while a trade deficit exerts downward pressure on a currency due to an increase in the supply of that currency in the foreign exchange markets.[40] Therefore, a growing trade deficit is one indicator that a currency may be losing it utility as a store of value. The remaining issue is to identify the economic conditions that correlate with decreasing rates of economic growth. Reinhart and Rogoff find that in advanced

---

[39] Congressional Research Service, "The Depreciating Dollar: Economic Effects and Policy Response," RL34582, Washington, DC: Government Printing Office, (July 17, 2008): 3-6.

[40] Ibid., 2-6.

economies, high rates of GDP growth correlate with low levels of debt to GDP while debt to GDP ratios over 90% correlate with economic contraction.[41] Hence, two measures of evaluation for a currency's potential to serve as a store of value through the foreign exchange market are its debt to GDP ratio and the trajectory of it trade deficit.

The determinants of the expected path of the currency, the need for diversification, and official holdings share a similar logic of risk management with the investors seeking safe haven determinant. When motivated by something other than pure value, investors may be willing to give up some level of return in exchange for other benefits.[42] The role of a currency as a store of value continues to play a role, but it may be a secondary consideration behind the ability to retrieve an investment quickly. In this case, their interest relies on the size and liquidity determinant. This characteristic allows a nation's market to handle large flows of funds with negligible impact on price and is measured by daily turnover, or the sum of daily sales and purchase.[43] According to Eichengreen, this liquidity is largely a product of the size of a nation's economy. He maintains that a reserve currency's economy must be relatively large in comparison with the overall world economy so that it is able to meet excess demand for its currency.[44] This logic leads directly to the foundation of liquidity according to Laney. He maintains that depth in a nations capital markets is achieved through a relatively large volume of short-term public debt.[45] Laney places this short-term debt in the context of a net creditor nation running a current account surplus.[46] Therefore, the ideal structure for a reserve currency nation balances short-term debt

---

[41] Reinhart and Rogoff, "Growth in a Time of Debt," 8.

[42] Congressional Research Service, "The Depreciating Dollar," 5.

[43] Ibid., 4-5.

[44] Eichengreen, "The Dollar Dilema," 54.

[45] Laney, "The Reserve Role of the Dollar and the United States as Net Debtor," 3.

[46] Ibid.

with a larger long-capital outflow and a trade surplus. The current account surplus would provide upward pressure on the currency, strengthening its utility as a store of value, while the capital account split between short and long term provide balance between liquidity and investment.

The preceding analysis has provided a number of variables to measure a currency's use as a store of value. The public debt to GDP ratio pertains to both inflationary pressures and depreciation on the foreign exchange that would follow low economic growth. Other measures that will affect how well a currency holds value are the size and trajectory of its nation's current account deficit, which should have direct consequences to its value. A nation's ability to provide liquidity is a function of its GDP relative to other nations, which allows it to take on significant levels of short-term debt. Therefore, consideration of GDP is useful for identifying the pool of candidates that might challenge an incumbent currency filling the predominant role in the international financial system.

The Trade Roles - Medium of Exchange and Unit of Account

The role as a medium of exchange through which transactions between other currencies are made is another function of money. As illustrated earlier through the brief history of the rise of international currencies, they tend emerge as resolutions to problems surrounding international trade. Alan Greenspan, former Chairman of the Federal Reserve Board, highlighted some of these issues at a speech to the Euro 50 Group Roundtable in 2001.[47] He notes that in a world of multiple currencies and multilateral trade, sales of a currency is unlikely to be matched with a simultaneous purchase. The result is that the customer has to wait or traders must hold costly inventories of currencies. Without efficiencies of scale, these transaction costs would be

[47] Alan Greenspan, "The Euro as an international currency" (remarks before the Euro 50 Group Roundtable, Washington, D.C., November 30, 2001.

expensive which leads to the logic behind funneling international currency transactions through a single currency.

This is where the linkage to the liquidity of a currency becomes apparent. In order to meet the demands associated with serving as an intermediary for the sale and purchase of other currencies, an international currency must possess significant liquidity. As stated in the previous section, this liquidity is dependent on the issuing nation having a relatively large GDP. However, this is a necessary condition, it is not sufficient in itself to explain how a currency comes to serve as a vehicle currency for the international financial system. The system will look for the currency that provides the lowest transaction costs which is a reflection of a high degree of liquidity.[48] Helen Rey, Professor of Economics at the London Business School, finds that trade flows are the key determinant in currency internationalization.[49] Krugman finds that only the currency of a nation that is important in world payments can serve as an international vehicle currency and that once that role is established it is self-reinforcing.[50] The payments are the result of imports and exports; therefore, to be important in world trade a nation must be active in trade, which reinforces Rey's findings. The process is reinforcing because once the role of vehicle currency is established, the transactions in that currency swell due to decreasing transaction costs. Krugman also finds that the process of change between vehicle currencies is catastrophic, as an amplifying loop of declining trade leads to increasing transaction costs and further declines in trade volume.[51] However, he does not examine the conditions that might lead to that transition.

---

[48] Goldberg, Linda, and Cedric Tille. *The Internationalization of the Dollar and the Trade Balance Adjustment.* Staff Report, New York: Federal Reserve Bank of New York, (2006): 5-6.

[49] Rey, Helene. "International Trade and Currency Exchange." *The Review of Economic Studies 68, no. 2*, (April 2001): 457.

[50] Krugman, "Vehicle Currencies and the Structure of International Exchange," 523.

[51] Ibid.

Laney provides further support for these findings and provides the logical linkage to the unit of account function of money. He maintains that a relatively large economy is likely to result in that nation's currency emerging as a transactions currency because it is also likely to have an absolutely larger trade volume.[52] Thus, he is stating that a large economy will correlate with a large trade volume, resulting in transactions being priced in that nation's currency.

The unit of account function is fulfilled when a currency is used for denominating international obligations and pricing commodities. As stated, this role is closely tied to the previously discussed function of currency as a medium of exchange because the volume of transactions becomes important. Robert Mundell, Professor of Economics at Columbia University, cites the importance of a unit of account for reducing the confusion of international payments and transactions.[53] George Tavlas, former Deputy Division Chief in the IMF's Treasurer's Department, agrees and provides additional rationale for using a unit of account in international transactions.[54] He states that a standard unit of account reduces the amount of information that must be acquired and processed in any one transaction, while also reducing the number of transactions that must be performed. He goes on that this is especially important for commodities and capital assets that do not have significant product differentiation and trade in competitive markets. As with the medium of exchange role, trade volume appears to be the theoretical key to gaining and maintaining prominence due to efficiencies gained from economies of scale. Therefore, for an international currency to gain and retain the predominant role in the international financial system its issuing nation should have the dominant share of world trade volume.

---

[52] Laney, "The Reserve Role of the Dollar and the United States as Net Debtor," 1-2.

[53] Robert Mundell, "Commodity Prices, Exchange Rates, and the International Monetary System" (presentation, Food and Agriculture Organization of the United Nations, Rome, Italy, March 25-26, 2002).

[54] Tavlas, George S. "The International Use of Currencies: The Dollar and the Euro." *Finance and Development 35, no. 2*, June 1999: 47.

Other Factors

In addition to the identified variables, Eichengreen also maintains that for a country's currency to be a candidate for a reserve currency role its markets must be transparent, with commercialized banks, and liberal access of foreign investors to those markets.[55] Chinn and Frankel also consider a good regulatory framework essential to a currency's fit as an international reserve.[56] These criteria are important to monitor in the rise and fall of international currencies, however, it is assumed that any currency that attains international status will have met this precondition. This criteria may become important in explaining the fall of a currency from the predominant position and the tier of international currencies.

In addition to the categories that can be used to evaluate the fit of a currency in a reserve role, two important considerations are presented that are useful in screening potential alternatives. The first is that a nation must encourage the use of its currency in this role. The Japanese government long discouraged the use of the yen internationally, because this would undermine its ability to maintain a low and competitive exchange rate and complicate its conduct of industrial policy.[57] The other consideration is a nation's demographics and resources. While Japan holds the number two ranking in terms of GDP, its growth potential is limited due to its population, immigration policies, and natural resources.[58] Therefore, in evaluating international currencies, it is important to consider future potential as well as current status.

---

[55] Eichengreen, "The Dollar Dilema," 65-66.

[56] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 8.

[57] Eichengreen, "The Dollar Dilema," 57.

[58] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 7.

Model for Analysis

Based on the theory of international currencies, a nation must have a relatively large economy for its currency to ascend to an international role. Once elevated, it becomes a competitor for the predominant role in international finance, which it will only achieve if it is dominant in trade. Therefore, it must have the dominant share of world trade volume and should lead in the value of its exports. Based on the ideal economic structure, the nation of the lead international currency should be a net creditor and possess a current account surplus. Once this structure has been achieved, the nation enjoys financial benefits as well as increased power in the international state system. Having gained this predominant position, the importance of the currency in trade reinforces the currency's strength. The nation risks losing this position by running up a gross government debt that results in a debt to GDP ratio of over 90% which correlates with increased inflation and low economic growth. This erodes confidence in the currency as a store of value. If trade volume decreases as a result of slow growth, a competing currency may begin to fill the trade roles. This transition should be catastrophic for the incumbent currency as its losses and the challenger's gains are self-reinforcing.

What the theory does not indicate are the reasons that a nation may accumulate large amounts of debt and lose its role in trade. Kennedy argues that the process is a slow shift in balance as great powers struggle with balancing immediate security concerns and long-term economic growth.[59] Ferguson believes that collapse is not a long drawn out process, but is the result of a catastrophic malfunction, usually associated with a financial crisis.[60] An application of the theory of international currency to the examination of the transition between the sterling and

[59] Kennedy, *The Rise and Fall of the Great Powers*, 540.

[60] Ferguson, "Complexity and Collapse," 30.

the dollar will provide insight into the veracity of these opposing views of the fall of great powers.

Historical Perspective: The Sterling - Dollar Transition

This transition between the sterling and the dollar is significant for two reasons. First, it is the most recent such reordering of the international financial system. Second, according to Eichengreen, based on the role of an international currency as a store of value for central banks and governments, it is the only such transition in history.[61] Analyzing this historical event through the variables delineated in the previous section will provide insight into the validity of the theories of great power decline presented by Kennedy and Ferguson. It will also help identify vulnerabilities that may expose the United States and the dollar to its own 'black swan' in the future.

Because the focus of analysis is transition, it must look at the relative positions for an incumbent and at least one challenger. This is difficult due to the scarcity of available economic data from the period. As Strange points out, historical financial records for this period are incomplete for a number of reasons.[62] While there are statistics, they are often estimates, and their nature may not lend themselves exactly to all of the independent variables identified in the previous section. However, they are sufficient for a comparison of the sterling as the incumbent, with the dollar as challenger.

Chinn and Frankel provide a useful summary of this transition, which began in the late nineteenth century and lasted until the conclusion of World War II. The United States economy surpassing the British economy in size was the first key event in the transition. This occurred in

---

[61] Barry Eichengreen, "Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition" (Lecture, Economic History Society, Leicester, UK, April 10, 2005), 2.

[62] Susan Strange, "The Politics of International Currencies," *World Politics, 23, no. 2*, (January 1971): 223.

1872, but the United States lacked a robust financial system until the creation of a central bank in 1913.[63] During World War I, the United States and the United Kingdom change roles in terms of debtor and creditor and trade balances. The United Kingdom became a net debtor, while the United States assumed the role of net creditor as its exports surpassed those of the United Kingdom in 1915.[64] Despite the dollar's emergence and growing role in international trade and finance, the level of foreign-owned liquid sterling assets was twice that of the dollar as late as 1940, but by 1945 the currencies reserve positions were reversed.[65] This paints a picture of a slow shift in the underlying structure conditions, which were necessary, but not sufficient for the transition. The system was only tipped in the dollar's favor through the crisis presented by the Second World War.

Analysis of the Sterling's Economic Foundation

Various estimates of economic size have the United States surpassing the United Kingdom before the beginning of the 20th century. As stated, Chinn and Frankel put the exact year as 1872. Table 1 shows that the United States had the largest economy and the fastest rate of growth throughout the first half of the twentieth century. The most notable aspect of this data is the dramatic growth of the United States' economy relative to the other nations. Despite having doubled the British economy by 1913, the dollar did not claim the primary role in the international economy until the end of World War II. This is not unexpected based on theory. It was noted that having a relatively large economy was a necessary, but not sufficient condition for a nation's currency to achieve a primary international role.

---

[63] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 1.

[64] Ibid.

[65] Ibid.

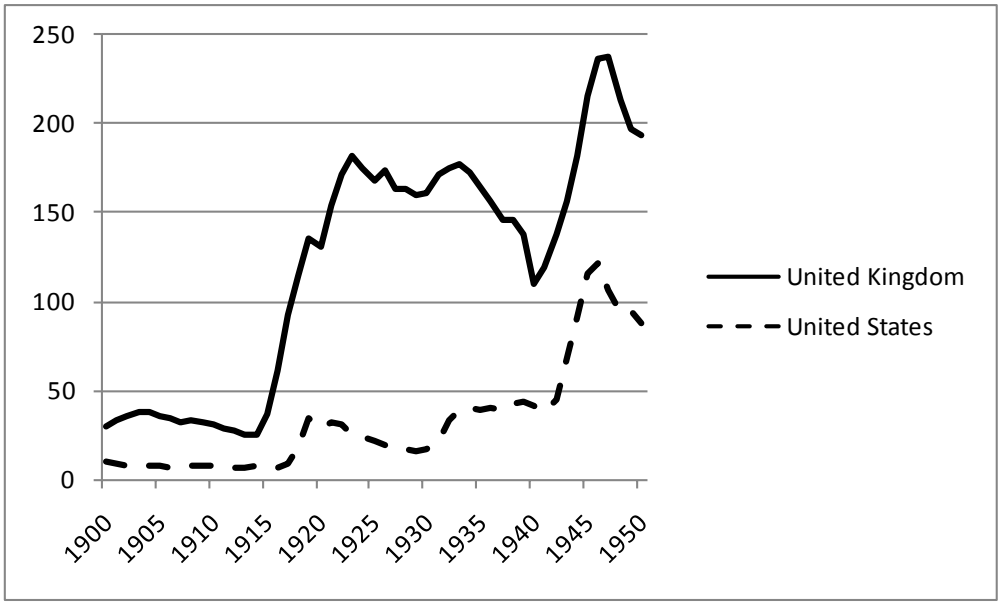
Year	United States	United Kingdom	France	Germany
1899	59	34	14	29.3
1913	97	42	16	37.5
1929	168	42	25	40.5
1937	171	50	22.4	46.5
1950	294	54.7	32.4	31.8

Source: Alfred Maizels, *Industrial Growth and World Trade* (Cambridge: Cambridge University Press, 1963), 531.

Table 1 - GDP (billions of 1955 U.S. dollars)

The data appears to support Rey's finding that GDP is not the primary factor in determining the internationalization of currency. It may also reflect the inertia of incumbency due to the self-reinforcing tendencies of holding the predominant position. Chinn and Frankel's note that part of the explanation lies in the fact that the United States' financial system was not properly developed until the creation of the central bank in 1913. Even with this condition met, it would take an additional 30 years for the dollar to claim the top spot.

One explanation for the slow relative growth of the United Kingdom's economy, compared to the United States can be found in each nation's debt to GDP ratio. Figure 1 shows that the United Kingdom surpassed the 90% threshold identified by Reinhart and Rogoff in 1917, exceeding 200% briefly during World War II. As expected, this correlates with a slower rate of economic growth. However, as the data in table 1 shows, the United Kingdom's economy grew more than the United States' from 1929-1937, during the Great Depression. This serves to undermine an notion of a causative link between high levels of debt to GDP and slow economic growth. However, there are signs that the levels of debt carried by the United Kingdom were eroding international confidence in the sterling as a store of value.



Sources: U.K. Public Spending, "UK Total Government Debt Current – Historical – As Percent GDP," http://www.ukpublicspending.co.uk/uk_national_debt (accessed June 3, 2010); U.S. Government Spending, "US Federal Debt As Percent Of GDP," www.usgovernmentspending.com (accessed June 3, 2010).

Figure 1 – Government Gross Debt to GDP Ratios (U.S. and U.K.)

The dramatic increase in British debt coincides, not unexpectedly, with the transition of the nation's net investment position. In the years leading up to World War I, The United Kingdom maintained a current account surplus despite a persistent trade deficit.[66] This is due to large and growing income receipts from overseas investments, which were reinvested overseas annually.[67] These long-term loans to the rest of the world kept the United Kingdom's net investment position positive, a condition that would change during World War I. During the war, the United Kingdom transitioned to a net debtor while the United States transitioned to a net creditor due in large part to British borrowing to fund the war.[68] While the British current account

[66] Laney, "The Reserve Role of the Dollar and the United States as Net Debtor," 5.

[67] Roderick Floud and Donald McCloskey, *The Economic History of Britain Since 1700: Volume 2: 1860 to the 1970s*, (Cambridge: Cambridge University Press, 1981), 289.

[68] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 1.

recovered during the 1920s, the deficits returned in the 1930s to combine with defaults on debt, and declining values of overseas assets, eroding the nation's net worth.[69] The existing debt, defaults on current obligations, and persistent current account deficits resulted in the erosion of investor confidence in the sterling leading to asset diversification.

Eichengreen points out that there was a perceptible shift occurring in reserve currency allocation during the interwar years. He notes that the dollar's increasing role in trade as a unit of account and in payments contributed to international diversification in reserve currency holdings, with the sterling holding a 57% share and the dollar rising to 19% in 1928.[70] This is in line with estimates from Chinn and Frankel that the level of foreign-owned liquid sterling was double that of dollars as late as 1940.[71] However, despite high levels of debt and sustained current account deficits, the sterling maintained its leading international role.

Rey's hypothesis was that trade volume was the key determinant in the internationalization of currency. Matching this with Krugman's finding that the process of transition would be catastrophic for the incumbent, it would follow that the sterling would give way to the dollar rapidly following the United States' assumption of the top place in trade volume. Table 2 shows the United States gaining the largest share of world trade volume sometime between 1913 and 1928. Yet, this only led to slight diversification away from the sterling, not a catastrophic collapse.

---

[69] Floud and McCloskey, *The Economic History of Britain Since 1700*, 300.

[70] Eichengreen, "Sterling's Past, Dollar's Future," 9.

[71] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 1.

Year	United States	United Kingdom	France	Germany
1890	9.8	22.4	10.2	10.3
1913	12.9	15.5	7.3	12.1
1928	17.3	13.7	6.1	9.3
1937	16	14.1	4.8	8.3

Source: Simon Kuznets, *Modern Economic Growth* (New Haven: Yale University Press, 1966), 306-308.

Table 2 - Share of World Trade (Percent)

A partial explanation for the lack of a collapse might be the relative value of each nation's exports as displayed in Table 3. According to this data, while the United States accounted for the largest share of world trade in 1928, in 1929 British exports were still slightly more valuable. Therefore, evaluation of the trade role may need to balance volume and value.

Year	United States	United Kingdom
1870	2,495	12,237
1913	19,196	39,348
1929	30,368	31,990
1950	43,114	39,384

Source: Angus Maddison, *The World Economy* (Organization for Economic Cooperation and Development, 2007), 360.

Table 3 - Value of Merchandise Exports (millions of 1990 U.S. Dollars)

It should be noted that the value of the United States' exports were increasing from 1913-1929, while those of Britain were falling over the same period. This leads to the inference that the value of United States exports overtook those of Britain much earlier than the 1950 data can confirm. Yet it was still at least another 15 years before the dollar would surpass the sterling as an international currency.

From the 1870s through 1939, the economic balance of power shifted from The United Kingdom to the United States. It began with the United States economy becoming the world's largest. As the United States developed its financial institutions, the dollar began to play an

important role in the international system. During World War I, the two nations exchanged their net investment positions, with the United Kingdom becoming a net debtor nation and the United States becoming a net creditor. The high levels of British debt and persistent deficits contrasted with the relative health of the United States slowly translated into patterns of international trade. However, the sterling maintained its role even after the United States held the dominant role in international trade. It took another world war to effect the change.

These slow foundational changes resulted in conditions where British liquid assets and exports were insufficient to finance their war effort.[72] In addition, the United States would not loan it money because it had stopped paying interest on debt from the First World War.[73] The loss of investor confidence resulted in an unwillingness to provide further loans. The United Kingdom was forced to deplete their reserves and to sell its illiquid assets under unfavorable terms.[74] The loss of these assets denied the United Kingdom the income that had kept its current account balance positive for decades and later, at least sustainable. Finally, after the Second World War, the dollar replaced the sterling as the dominant international currency. This transition in economic power would translate into changes in state power as illustrated by the following two examples.

Bretton Woods – An Example of Structural Power

The creation of the Bretton Woods System during World War II provides an example of structural power and the role of economic strength as its foundation. American and British policy makers developed a joint plan for post war monetary arrangements that was adopted by 44 nations at the 1944 Bretton Woods conference.[75] The fact that the United States and the United

---

[72] Floud and McCloskey, *The Economic History of Britain Since 1700*, 306.

[73] Ibid.

[74] Ibid.

[75] Oatley, *International Political Economy*, 225.

Kingdom developed a plan that was subsequently adopted by the international community demonstrates that those two nations possessed structural power, or the ability to shape the framework of international relations. They used this power in an attempt to create an international system that reduced trade barriers, thus promoting free trade as a way to raise standards of living, create interdependencies and cement post war peace through global institutions, including the IMF and the World Bank.[76] The system attempted to lower trade barriers by reconciling exchange rate stability and domestic economic autonomy by creating an explicit code of conduct for the international monetary system and institutional controls centered on the IMF.[77] Because the United States possessed the largest economy, it held the largest share in the IMF and stabilization fund intended to finance balance of payment deficits, reconstruction and long-term development.[78] In controlling the largest share of these institutions, the United States benefited greatly through an increased ability to control the behavior of other nations in the international system. The Suez Crisis demonstrates the importance of this power to a nation when pursuing their national interests.

The Suez Crisis – Lost Autonomy

When Egyptian President Gamal Abdel Nasser nationalized the Suez Canal on July 26, 1956, he triggered an international crisis that demonstrated the importance of autonomy in international relations and made clear that the United Kingdom had lost a measure of theirs. In the days following the nationalization, Prime Minister Anthony Eden stated that the incident was a vital national interest because 80% of Western Europe's oil and commerce between the United

---

[76] Daniel Yergin and Joseph Stanislaw, *The Commanding Heights: The Battle for the World Economy*, (New York: Free Press, 2008), 387-388.

[77] Oatley, *International Political Economy*, 225.

[78] Ibid., 227-228.

Kingdom, India, Autrailia, and British colonies passed through the canal.[79] The British collaborated with the French and Israelis on Operation MUSKETEER, a military operation launched on November 5th to seize the Suez Canal.[80] However, significant reserve losses and the economic impacts of oil shortages combined to cripple the British effort. The action had cost the British $400 million in reserves by the end of the month and the United States would not support aid from international institutions without a complete withdrawal of forces.[81] Britain did not have an alternative source of funds. The United States controlled its own markets as well as the IMF and World Bank.[82] The United Kingdom was forced to recant an action, which it had labeled in its vital national interest, at the command of the United States because it had run out of money. A great power must be able to act unilaterally to protect its national interests and the United Kingdom had lost this capacity with the loss of it economic dominance. Britain could forego American approval and friendship, but could not forfeit American money.[83]

Lessons From the British Experience

This transition illustrates a number of important points. Overall, it demonstrates a synthesis of Kennedy's and Ferguson's theories. The decline of the British Empire with the sterling as the dominant international currency was the culmination of over 50 years of slowly shifting economic fundamentals. However, a crisis was required to tip the balance of power. The next important point is that despite high levels of debt and persistent current account deficits, the international community continued to provide financing to the United Kingdom. This continued

---

[79] Diane B. Kunz, *The Economic Diplomacy of the Suez Crisis*, (Chapel Hill: The University of North Carolina Press, 1991): 79.

[80] Ibid., 117.

[81] Ibid., 138, 150.

[82] Ibid., 193

[83] Ibid.

despite the existence of a nation with a larger economy and an equal, or greater, role in trade. This reinforces Krugman's finding that once a currency becomes the leading international currency its role is self-reinforcing. The collapse in the face of a crisis may indicate that he was also correct in his assessment that a currency's fall from the top spot would be catastrophic. A final important finding is that the British collapse followed the government's sale of its illiquid income producing assets. The loss of these assets prevented the United Kingdom from retaining its position of global leadership. In the end, the reasons for the collapse of the British Empire and the sterling are complex, but the primary lesson appears to be that through excessive reliance on deficit spending, the government robbed itself of the ability to function autonomously when it needed to.

While this overview is useful in illustrating these points, it is important to acknowledge the context of that transition. American isolationism and the Great Depression may have slowed the process. These factors probably pushed investors to the sterling, which had the trust of the international community. This would be similar to the reaction of the international community to the latest financial crisis.[84]

Prospects for the Dollar

Analysis of the Dollar's Economic Foundation

The current position of the United States appears to be different form that faced by the United Kingdom a century ago. Unlike the position of the United Kingdom at the beginning of the 20th century, the United States still has the world's largest economy. Table 4 lists the ten largest economies measured by GDP. Only the Eurozone is close to matching the United States' economic size.

---

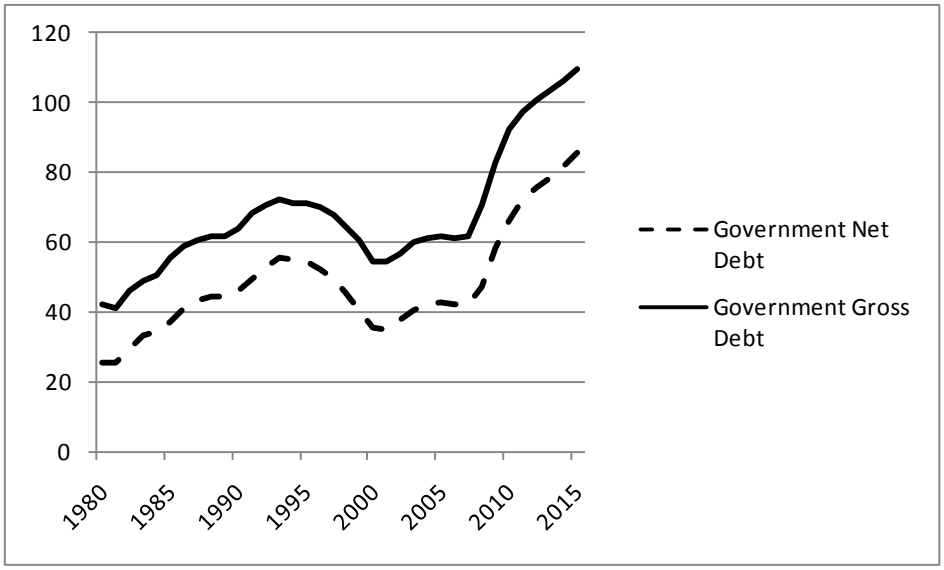
[84] Eichengreen, "The Dollar Dilema," 55-56.

Rank	Country	2008 GDP (millions of U.S. dollars)	% of World GDP
1	United States	14,093,310	23.3%
2	Eurozone	13,580,866	22.4%
3	Japan	4,910,840	8.1%
4	China	4,326,996	7.1%
5	Germany	3,649,494	6.0%
6	France	2,856,556	4.7%
7	United Kingdom	2,674,057	4.4%
8	Italy	2,303,079	3.8%
9	Russian Federation	1,679,484	2.8%
10	Spain	1,604,235	2.6%

Source: The World Bank, "World Bank Data Catalog." http://data.worldbank.org/data-catalog (accessed June 3, 2010).

Table 4 - Top Ten World Economies

Another difference is that the United States just crossed the threshold of 90% debt to GDP ratio in 2010. As was demonstrated in the British example, it is possible for a lead nation to endure this level for decades. However, the rising levels of debt projected by the IMF are cause for concern, as it may cause investors, both private and foreign governments, to seek other destinations for their capital. Examination of the trade roles provides further insight into the dollar's economic foundation and identifies additional concerns.



Source: International Monetary Fund, "World Economic Outlook Database April 2010," http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx (accessed August 15, 2010).

Figure 2 - U.S. Government Debt to GDP Ratio (Projected Through 2015)

As the British case demonstrated, it is prudent to consider both trade volume and export values to analyze strength of the United States and the dollar. According to table 5, the United States still accounts for the greatest share of the world's trade volume. However, five of the top ten nations, in terms of trade volume, are members of the Eurozone. From the table, their combined share of world trade volume is twice that of the United States, which, according to Rey, is the key determinant of the dominant international currency. However, the British case showed that the United States had passed the United Kingdom in terms of trade volume by 1928 without causing the sterling to collapse.

Rank	Country	2009 Share of World Trade Volume
1	United States	10.6%
2	China	8.8%
3	Germany	8.2%
4	Japan	4.5%
5	France	4.1%
6	Netherlands	3.8%
7	United Kingdom	3.3%
8	Italy	3.2%
9	Belgium	2.9%
10	Republic of Korea	2.7%

Source: World Trade Organization, *World Trade 2009, Prospects for 2010* (Geneva: WTO, March 2010), 10.

Table 5 - 2009 Share of World Merchandise Trade

Table 6 shows that the United States does not hold the lead in terms of the value of its exports either. It currently sits third behind China and Germany. The fact that Germany is in front of the United States in terms of export value means that the Eurozone leads the United States in both measures of trade.

Rank	Country	2009 Export Value
1	China	$1,204,000,000,000
2	Germany	$1,159,000,000,000
3	United States	$1,046,000,000,000
4	Japan	$542,300,000,000
5	France	$472,700,000,000
6	Netherlands	$417,600,000,000
7	Italy	$412,900,000,000
8	Republic of Korea	$373,600,000,000
9	United Kingdom	$357,300,000,000
10	Canada	$323,400,000,000

Source: CIA Factbook, "Country Comparison – Exports," https://www.cia.gov/library/publications/the-world-factbook/rankorder/2078rank.html (accessed September 10, 2010).

Table 6 - Value of Merchandise Exports (U.S. dollars)

To this point in the evaluation, there are indicators that the dollar may be vulnerable. The economic foundation of the Euro is nearly the same size as the United States, and the Eurozone accounts for more international trade in terms of both volume and value. Combined with the high levels of debt to GDP in the United States, which are expected to correlate with increasing inflation and slow economic growth, it is reasonable to expect investors may begin looking to diversify their holding as they did during the interwar period. Another factor, which will erode investor confidence in the dollar as a store of value, is a growing trade deficit that would put downward pressure on the dollar if investors stop buying the currency as a reserve. This may lead to a rapid collapse as predicted by Krugman's theory.

The data shows that the United States current account is increasingly negative which will increase the vulnerability of the dollar if it follows current projections. Figure 3 shows the sharp increase in the United States' current account deficit between 1998 and 2006. The data shows that the deficit nearly quadrupled from $213 billion in 1998 to a peak of $803 billion in 2006 before a slight rebalancing in 2007 and 2008.

Source: International Monetary Fund, "World Economic Outlook Database April 2010," http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx (accessed August 15, 2010).

Figure 3 - United States Current Account Balance (billions of U.S. dollars)

The IMF projection for the 2010 current account deficit is $487 billion, which is still more than double the 1998 level and reverses a three-year trend of reduced current account deficits.[85] While the nation's deficits have come down from their peak in 2006, at nearly 5% of GDP they are too high to control the rising debt and are projected to continue increasing following 2010. A deficit to GDP ratio of 2% would likely prove to be a sustainable level as it would allow GDP to grow, on average, at a faster rate than debt.[86] This would equate to reducing deficits at 1998 levels, which may or may not be possible without serious tradeoffs.

In order to understand what is possible, it is necessary to understand why the trade deficit is as large as it is. There are two explanations for the emergence of the current global imbalance. The first offered by Ben Bernanke is the "global savings glut," which is the result of the developing world's transition from net borrower to net lender.[87] His argument is that developing countries lost some capacity to borrow because of financial crises in the 1990s. The long-term impact of these crises is that developing nations became less willing to borrow and run budget deficits. They have instead turned to accumulation of foreign exchange reserves by their central banks as a method of national savings. Finally, Bernanke holds that the rise in oil prices has resulted in an abrupt increase in revenue and saving for oil exporting nations. He argues that this excessive savings was attracted to the United States because of the technology boom in the 1990's, the maturity and safety of its capital markets, and the unique role of the dollar as a reserve currency.

---

[85] *World Economic Outlook Database* at the International Monetary Fund website, https://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx, (accessed June 3, 2010).

[86] Michael Mussa, "Exchange Rate Adjustments Needed to Reduce Global Payment Imbalances," In *Dollar Adjustment: How Far? Against What?*, by C. Fred Bergsten and John Williamson, (Washington, D.C.: Institute for International Economics, 2004), 118.

[87] Ben Bernanke, "The Global Savings Glut and the U.S. Current Account Deficit" (The Sandridge Lecture, Virginia Association of Economics, March 10, 2005).

The second explanation is the "money glut" as advanced by Martin Wolf.[88] In this view, the United States monetary excess causes low nominal and real interest rates making credit attractive and available to consumers. This has the effect of lowering savings while increasing spending which absorbs imports. The dollar then loses value against floating currencies, but pegged currencies are kept low relative to the dollar by foreign currency intervention. In the end, this view argues that excess money creation by the United States forces the rest of the world to invest in the dollar as a foreign exchange reserve in order to control excessive demand and inflation. As Wolf points out, understanding which view is correct is important because if the savings glut is correct, the adjustment can be controlled, but if the money glut is more accurate then the adjustment will come at the cost of monetary stability.[89]

Are the Global Imbalances Sustainable?

While there seems to be consensus that the dollar will inevitably lose its predominance, there is wide disagreement on the process of transition and the end state. This is likely due to the uncertainty regarding the true meaning of the United States current account deficits and overall levels of debt. As previously stated, Kennedy and Ferguson have opposing views on the length of a possible transition. Chinn and Frankel state that the Euro could replace the dollar as a single dominant currency as early as 2015.[90] However, their conclusions were drawn in 2008, and the ongoing European debt crisis will likely impact investor confidence and, at the least, extend that timeline. On the other hand, Eichengreen sees the potential for two or three currencies to share

---

[88] Martin Wolf, *Fixing Global Finance*, (Baltimore, MD: The Johns Hopkins University Press, 2008) 109.

[89] Ibid., 110.

[90] Chinn and Frankel, "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency," 18.

the reserve role in the market in the 2020 – 2040 timeframe.[91] In addition to the uncertainty surrounding the United States' debt level, this disagreement is also a reflection of the lack of numerous historical references.

As stated earlier, the United States current account deficit is not considered indefinitely sustainable along the current trajectory. The question is how much higher can deficits and debt go before an adjustment occurs. Martin Wolf contends that the imbalances are sustainable as long as creditors are willing to finance the United States.[92] What his statement implies is that the creditor nations are making a deliberate choice to buy the dollar and hold it as a reserve. This is in line with the example provided by continuing support for the sterling in the first half of the twentieth century. Therefore, to understand what is sustainable, it is necessary to understand why they continue investing in the dollar.

The theory maintains that the capital will flow to the highest rate of return, seeking the best store of value. The Congressional Research Service offers reasons this might be the case for the United States and the dollar. They are that the United States has enjoyed greater productivity growth than most of the world since the mid 1990's, higher interest rates due to the low level of domestic savings combined with deficit spending, and the theory of diminishing returns which in this case applies to developed countries need to invest abroad for efficiency reasons.[93] The problem with this is that the returns are likely to get worse due to depreciation of the dollar. If investors are only seeking a high rate of return, they are likely to abandon the dollar.

Paul Krugman argues that the dollar must depreciate. This is the result of his view that the trade deficit is not sustainable, that closing it requires a redistribution of world spending

---

[91] Eichengreen, "Sterling's Past, Dollar's Future," 21.

[92] Wolf, *Fixing Global Finance*, 149.

[93] Congressional Research Service, *Is the U.S. Trade Deficit Caused by a Global Saving Glut?* (RL33140, Washington, DC: Government Printing Office, June 20, 2007).

which requires a fall in relative prices of goods produced by the United States.[94] This is nothing different from normal balance of payments adjustment. The question revolves around the speed of this depreciation.

The dollar was depreciating steadily at a rate of 3-4% annually from 2002-2006, but jumped significantly to 10% in 2007.[95]The trend has been reversed as investors have flocked to the dollar during the recent financial crisis in search of a safe haven. As the world economy recovers, there is no reason to believe that the dollar depreciation will not continue. The crucial question to Krugman "is whether the dollar must eventually depreciate at a rate faster that investors now expect."[96] It is reasonable to infer that the investors expect and accept a rate of depreciation at or below 3-4% annually as they did from 2002-2006. What is not clear is if they will accept the rate of 10% that emerged in 2007. Krugman argues that if investors fail to account for the required devaluation there will be a 'Wile E. Coyote' moment were they look down and realize there is nothing supporting their investment.[97] The question then becomes whether the dollar must depreciate faster than the 3-4% rate.

Krugman evaluates two scenarios for dollar depreciation that help answer this question. The first scenario occurs over 20 years at an annual rate of 1.75%.[98] This rate of depreciation is clearly within the 3-4 percent levels of 2002-2006. The problem with this rate is that it results in a net external debt to GDP ratio of 118%. As previously discussed, that level of external debt to GDP has never been sustained by a large nation, which makes it a dangerous course. In addition,

---

[94] Paul Krugman, "Will There Be a Dollar Crisis," *Economic Policy*, (July 2007), 438.

[95]Congressional Research Service, *The U.S. Trade Deficit,* 1.

[96] Paul Krugman, "Will There Be a Dollar Crisis," *Economic Policy*, (July 2007), 439.

[97] Ibid., 440.

[98] Ibid., 445.

Krugman finds that it might result in foreign ownership of more than one-third of the United States' capital stock.

The second scenario occurs over 10 years at an annual rate of 3.5%.[99] The resultant net external debt to GDP ratio in this scenario is only 58%. This scenario also avoids the problem of large-scale foreign ownership of the nation's capital stock. This rate of depreciation is still within the range that was sustained from 2002-2006, indicating that it may be possible to close the United States current account deficit without a major dollar crisis. For this to happen, investors would have to expect and accept the dollar's depreciation and the dollar would have to depreciate no faster than Krugman's projected rate.

While it appears that the current global imbalances are not sustainable, it seems plausible that an adjustment does not mean the end of the dollar as the predominant international currency. The fact that investors have already accepted the necessary level of depreciation over a five-year period indicates that they would be willing to accept it over the longer ten year period in Krugman's model. The reasons for this could be that they are more concerned with the ability to quickly retrieve their investment than they are with pure value retention. If this is the rationale for investment in the dollar, then this is where the true vulnerability of the dollar can be found.

A Plausible Future for the Dollar?

If investors are willing to accept some annual depreciation in exchange for the ability to quickly liquidate their reserves and intervene in a crisis, it should be asked whether there are investors that hold such a large share of United States securities that they alone pose a risk to the dollar's status. It is impossible to know exactly what scenario might emerge to cause the dollar to

[99] Ibid.

lose its place as the dominant international currency, but it is certainly possible to evaluate existing vulnerabilities.

Concern that China will seek to liquidate its large share of dollar holdings makes the unlikely assumptions that the rest of the world can absorb their share and that they are willing to accept significant losses as the value of the dollar plummets during the selloff. It could also result from some unforeseen crisis such as another world war, as was the case for the United Kingdom. However, because the United States is reliant on the international community to fund its current budget deficit, the real problem may reside in the economic health those nations.

Table 7 shows the four largest holders of United States Treasury securities. This data shows that China is currently reducing its holdings in the dollar, while Japan and the United Kingdom are increasing theirs. Over the last year, Japan has increased its holdings by $95.4 billion, while the United Kingdom has increased it dollar holdings by $271.4 billion. The United States' reliance on these nations to fund its budget deficit is reason to examine their economic foundation. Their domestic economic crisis could quickly affect the United States if they are unable to continue purchasing its debt, or if they are forced to liquidate dollar holdings in response.

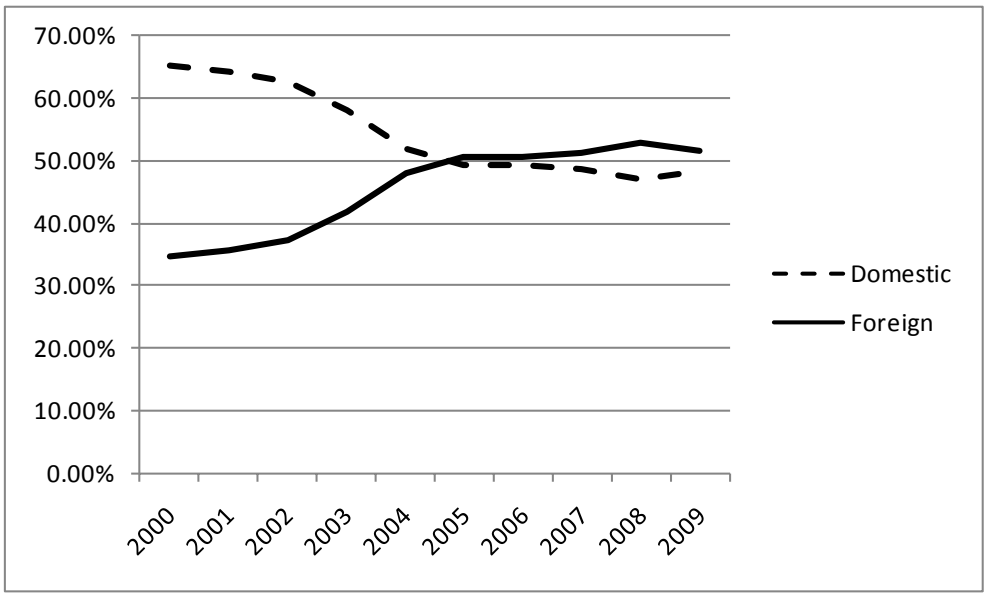
Country	July 2009	January 2010	July 2010
China, Mainland	915.8	889	843.7
Japan	708.2	765.4	803.6
United Kingdom	90.8	208.3	362.2
Oil Exporters	211.8	218.4	223

Source: United States Treasury, "Treasury International Capital System - Home Page," http://www.ustreas.gov/tic (accessed September 10, 2010).

Table 7- Major Foreign Holders of U.S. Treasury Securities (billions of U.S. dollars)

This comes at a time when the United States is increasingly dependent on foreign capital to finance its budget deficits and as a result debt is increasingly owned by foreign investors, both private and governments. Figure 4 shows that as a percentage, more than half of the United States

public debt is owned by foreigners. However, in real terms, both foreign and domestic investors have been increasing their ownership in recent years. The significance of this is that the United States in increasingly reliant on external sources of capital to fund its budget deficits. Because domestic investors have also increased their purchases of debt, it is not certain that they would be able to offset a rapid international selloff of United States securities. Nor is it likely, that they would be willing to invest in a security that was rapidly losing value. Two potential scenarios that could lead to the fall of the dollar present themselves in this data.

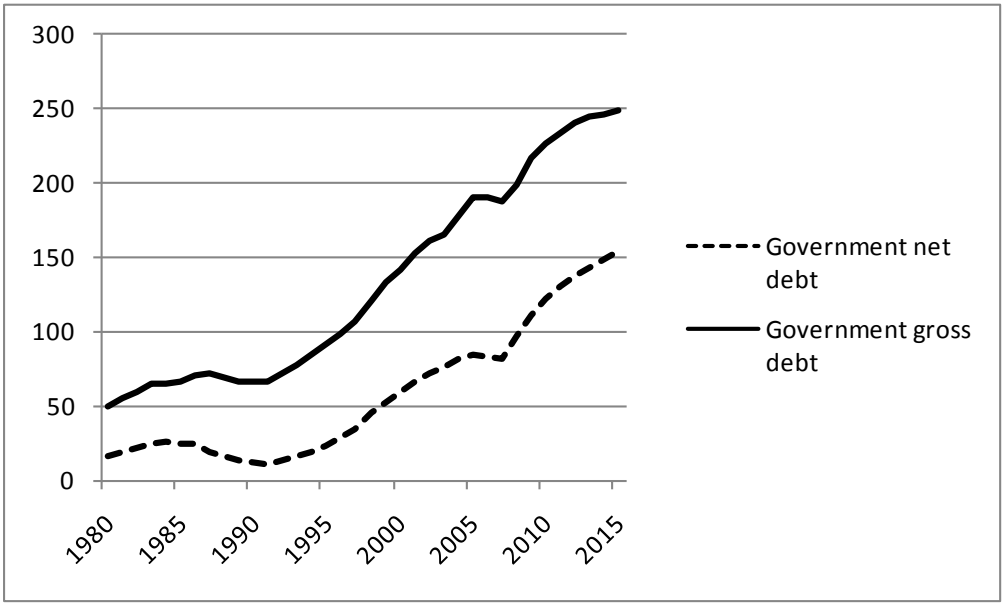


Source: United States Treasury, "Treasury Bulletin September 2009," http://www.ustreas.gov/tic (accessed June 3, 2010).

Figure 4 - Ownership of U.S. Debt

Japan's current role as a major holder of United States debt, combined with its own debt concerns may prove to be the spark that leads to the dollar's loss of international predominance. Figure 5 shows that Japan has a serious structural problem in regards to its debt levels. Its gross public debt to GDP ratio has been above Reinhart and Rogoff's 90% threshold since 1995, and is projected to reach and surpass levels experienced by The United Kingdom during World War II. Even more concerning, is the projected growth in the net debt to GDP ratio, reaching 150% by

2015. If Japan is forced to sell off its reserves to deal with payment issues, as the United Kingdom was forced to during World War II, it might lead to Kurgman's Wile E. Coyote moment. This scenario is more likely when Japan's falling savings rate is considered. According to Martin Feldstein, Professor of Economics at Harvard, the household savings rate in Japan has been falling from 15% in the 1980s to 2% in 2009 which is threatening Japan's net savings surplus and, in turn, its ability to export capital.[100] A Japanese liquidation of dollar assets would put downward pressure on the dollar. This in turn, would reduce the value of dollar holdings around the world, potentially causing other investors to begin selling their dollar securities before the bottom falls out. This would be the equivalent of a bank run on an international scale.

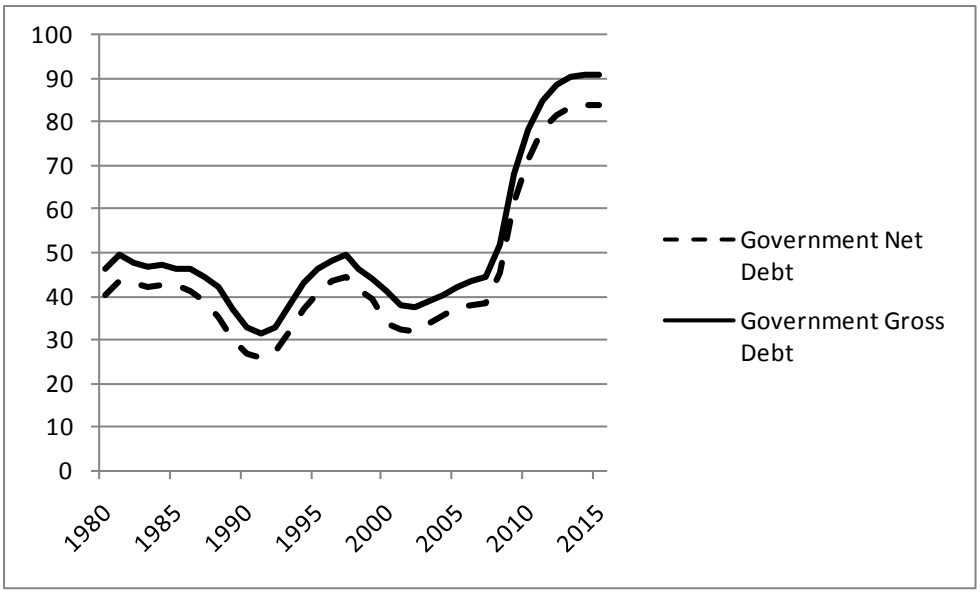


Source: International Monetary Fund, "World Economic Outlook Database April 2010," http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx (accessed August 15, 2010).

Figure 5 - Japanese Debt to GDP Ratios

[100] Martin Feldstein, "Japan's Savings Crisis," Project Syndicate, http://www.project-syndicate.org (accessed October 13, 2010).

The United Kingdom's economic health poses a similar problem. Figure 6 illustrates that, while their debt levels are not as high as Japan's, they are predicted to rise above 90% of GDP within the next five years. The most concerning aspect of the United Kingdom's debt is the rapid rate of growth following 2007, doubling by 2012. As the United Kingdom faces its rapidly growing debt, likely accompanied with higher interest payments, it may not be able to purchase additional United States debt. As Table 7 showed , the United Kingdom has increased their holdings of United States Treasury Securities by $271.4 billion over the last year. This has allowed the United States to continue financing the wars in Iraq and Afghanistan, as well as the large economic stimulus. However, an inability to purchase additional debt is not the real problem for the United States, much like the scenario with Japan, the problem emerges when the United Kingdom is forced to sell its reserves to cover its own payments or to intervene in a crisis that threatens its economy.



Source: International Monetary Fund, "World Economic Outlook Database April 2010," http://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx (accessed August 15, 2010).

Figure 6 - United Kingdom Debt to GDP Ratios

A resurgence of the sovereign debt crisis that hit Europe earlier this year could trigger such a scenario. Based on data in table 9, five high-risk nations owe the United Kingdom a total of $418 billion. Three fourths of this amount is owed by Spain and Ireland, nations who have significant debt issues of their own.

Country	Debt to United Kingdom
Ireland	188
Spain	114
Italy	77
Portugal	24
Greece	15

Source: Bank for International Settlements

Table 8 - Debt Owed to the United Kingdom (billions of U.S. dollars)

Spain and Ireland have both experienced setbacks in their efforts to avoid future defaults. The Irish have announced an initiative to spend billions to prop up its banking sector while Spain's credit rating was downgraded by Moody's on September 30, 2010 over concerns about current financial condition and prospects for growth.[101] A default by either of these nations on obligations to the United Kingdom might force the United Kingdom to liquidate a significant portion of its dollar holdings. In either case, a major selloff of United States dollars by one of the top three holders could cause a panic, as investors would seek to sell their holdings before the value plummets.

[101] Wall Street Journal World at a Glance, "World Watch – Europe," Wall Street Journal Online, http://online.wsj.com/article/SB10001424052748704483004575524032776735098.html (accessed October 1, 2010).

Impacts to National Security

Just as it is impossible to predict exactly what the future of the dollar holds, it is impossible to predict exactly the second and third order effects of a dollar collapse. However, the falling value of the dollar would have important consequences because of the United States' continued reliance on deficit financing. The inflow of foreign financing would be dramatically, if not wholly, reduced as the value of the dollar falls. Therefore, the United States would have to pay higher interest rates to fund future debt to offset the increasing uncertainty about its future value; this would place a restrictive constraint on future government spending. Any hope of covering this spending shortfall by increasing revenue through taxation is also unlikely to succeed in the short-term because of potential impacts to the domestic economy. Eventually, the economy will recover as the weaker dollar makes United States exports more affordable for the rest of the world.

Such a crisis would force the United States Government to make immediate spending cuts due to the loss of international funding. The fiscal year 2010 budget provides an example of the risk. The Congressional Budget Office (CBO) budget projections for fiscal year 2010 anticipate $2.175 trillion in revenue balanced against $3.524 trillion in outlays.[102] The budget deficit for 2010 is then $1.349 trillion. This accounts for nearly all of the discretionary spending for 2010, which is $1.371 trillion.[103] In other words, the United States could only fund 1.6% of its 2010 discretionary spending without borrowing from foreign governments and private investors. This means that almost any disruption to the inflow of capital from these investors would force the government to suspend governmental operations, including overseas military operations or cut entitlements such as Social Security and Medicaid. Congress would likely try to spread the

[102] Congressional Budget Office, *The Budget and Economic Outlook: Fiscal Years 2010 to 2020*, (Washington, DC: Government Printing Office, January 2010), 8.

[103] Ibid.

spending reductions across governmental functions, but the political reality is that cutting spending on overseas military operations is easier than cutting social programs for constituents.

Even modest reductions in government spending would affect funding supporting the National Security Strategy. The 2010 National Security Strategy outlines four enduring national interests – *security* of the United States, its citizens, allies and partners; *prosperity* through a growing United States economy in an open international system; respect for universal *values* throughout the world; and an *international order* advanced by United States leadership and international cooperation.[104] Each of these national interests would be jeopardized by a dollar crisis.

A key component of the national interest in security is to disrupt, dismantle, and defeat Al-Qa'ida and its violent extremist affiliates around the world.[105] The frontline of this effort is in Afghanistan and Pakistan where the United States is fighting the insurgency, working to build an effective Afghan government, and to increase trust and respect with the Pakistani government while supporting their capacity to target extremists.[106] It is likely that these would be among the first casualties of budget cuts, as the American public would demand the government prioritize a severe domestic crisis over the enduring war effort. Even absent calls from the public, it is unlikely the United States could find a way to continue funding the $165 billion required for wars in Iraq and Afghanistan in the face of a dollar crisis.[107] Beyond the immediate crisis, the higher interest rates that would be required on new debt following a crisis would also constrain the

---

[104] Barack H. Obama, *The National Security Strategy of the United States*, (Washington, DC: The White House, May 2010), 17.

[105] Ibid., 19.

[106] Ibid., 21.

[107] Congressional Budget Office, *The Budget and Economic Outlook*, 6.

nation's ability to conduct future overseas military operations as it did for the British in the 1950s.

The remaining national interests of prosperity, values and international order would be undermined by the inability of the United States to continue funding international development institutions at current levels. One policy nested within the prosperity interest is to increase investments in development in order to help developing countries grow into prosperous, democratic, and accountable state institutions.[108] The United States support to international institutions such as the IMF and World Bank are critical ways that the nation works toward an open international economic system while simultaneously promoting universal values and international cooperation. The United States may not be able to maintain its leadership role in these organizations following a dollar crisis as it will become harder to maintain a higher level of financing relative to the other members. The United States could find itself reliant on the policy interests of another nation that may not weight universal values, democracy, and international cooperation as highly as it does.

The case for fiscal year 2010 is extreme based on stimulus spending, however, it is also a fact that the government faces. The CBO projects that annual budget deficits will fall dramatically by 2020 behind significant increases in revenue, resulting in deficit levels equal to less than half of annual discretionary spending.[109] These revenue increases are not guaranteed, as there is ongoing debate regarding the upcoming expiration of the Bush tax cuts and future growth in revenue is linked to economic recovery. If realized, this structure will reduce the United States' vulnerability, but it does not eliminate it as the reliance on external funding remains and the overall debt burden continues to increase.

---

[108] Obama, *The National Security Strategy*, 33.

[109] Congressional Budget Office, *The Budget and Economic Outlook*, 8.

Conclusion

The analysis indicates a synthesis of Kennedy and Ferguson's theories of great power decline. Economic foundations shift slowly over time, but the true frailty of the system is not apparent until a crisis tips the balance of power. Much of the United States' current international power has been derived from its economic strength, and the translation of that strength into leading roles in current international institutions such as the IMF and World Bank. However, there are indicators that this strength has turned into a vulnerability due to excessive budget deficits financed by foreign nations with shaky economic fundamentals.

The theory of international currencies and the case of the interrelated declines of the sterling and the United Kingdom, indicate that there are a number of necessary conditions that can make a great power vulnerable. The loss of economic prominence, as measured in terms of GDP, gross government debt, and trade, weakened investor confidence in the sterling, while undermining its utility in the trade roles of an international currency. This resulted in diversification by central banks and private investors who replaced a portion of their sterling reserves with dollars. This reduced the inflow of foreign capital to the United Kingdom, led to its inability to continue making interest payments on debt owed to the United States. When the United States refused additional loans to Britain at the outset of World War II, it forced them to sell their gold reserves and illiquid income producing assets. In the end, the United Kingdom had relied too heavily on deficit spending supported by external sources. When these sources proved unwilling to provide further support, the United Kingdom and the sterling gave way to the United States and the dollar. This resulted in the loss of international leadership, but also lost autonomy as demonstrated by the Suez Crisis.

The United States is now following the same path as the nation's debt has grown rapidly in the midst of its own wars following the terrorist attacks on September 11, 2001. There is a long-term vulnerability in the trajectory of the United States' current account deficit and growing debt burden, which will undermine investor confidence in the dollar as a store of value. If foreign

governments and private investors no longer view United States securities as a safe store of value, they will begin to diversify their reserve holdings. This combined with the United States loss of its lead in world trade could result in the replacement of the dollar as the primary international currency. However, the evidence indicates that investors still feel that the dollar is a useful investment, either as a store of value, or as a highly liquid asset that provides a ready means to intervene in a domestic crisis. Therefore, the United States has time to make necessary adjustments before the dollar loses its predominant role. Change will require restoring fiscal discipline and altering federal spending priorities. However, investors holding the dollar for its high liquidity create a different vulnerability, with potentially more immediate consequences.

If foreign governments are holding the dollar for its liquidity, the real danger to the United States international predominance may reside in the house of cards upon which its deficit spending relies. The largest, and fastest growing, investors in United States securities are heavily indebted themselves. This leaves the country vulnerable to a crisis that it cannot control. Looming crises in those nations could result in a run on the dollar, which would force the United States Government to make an immediate budgetary decision between national security and entitlement programs. Defense cuts would undermine national security objectives as stated in the 2010 National Security Strategy and constrain ongoing overseas military operations and the nation's leadership role in international institutions. A dollar crisis could also result in the dollar's loss of status as the leading international currency, which poses long-term implications to national security, as the nation would lose a measure of its autonomy as the United Kingdom did following World War II.

Bibliography

Aizenmann, Joshua, and Nancy Marion. "Using Inflation to Erode the U.S. Public Debt." National Bureau of Economic Research working paper w15562, Cambridge, MA, December 2009.

Alexandaki, Katerina. *Challenging the US Dollar's Reserve Currency Status.* White Paper. New York: Alliance Bernstein, August 2009.

Barack H. Obama, *The National Security Strategy of the United States*. Washington, DC: The White House, May 2010.

Bernanke, Ben. "The Global Savings Glut and the U.S. Current Account Deficit." The Sandridge Lecture, Virginia Association of Economics, March 10, 2005.

Boschen, John F., and Charles L. Weise. "What Starts Inflation: Evidence from the OECD Countries." *Journal of Money, Credit, and Banking*, 35, No. 3 (June 2003): 323-349.

Bryan, Michael F. "On The Origin and Evolution of the Word Inflation." *Federal Reserve Bank of Cleveland.* October 15, 1997. http://www.clevelandfed.org/research/Commentary/1997/1015.pdf (accessed August 14, 2010).

Chinn, Menzie D., and Jeffrey A. Frankel. "The Euro May Over the Next 15 Years Surpass the Dollar as Leading International Currency." National Bureau of Economic Research working paper, Cambridge, MA, April 2008.

Cohen, Benjamin J. "Currency and State Power." Presented at a conference to honor Stephen D. Krasner, Stanford University. December 4, 2009.

Congressional Budget Office. *The Budget and Economic Outlook: Fiscal Years 2010 to 2020.* Washington, DC: Government Printing Office, January 2010.

Congressional Research Service. *Is the U.S. Trade Deficit Caused by a Global Saving Glut?* RL33140, Washington, DC: Government Printing Office, June 20, 2007.

—. *The U.S. Trade Deficit: Causes, Consequences, and Cures.* RL31032, Washington, DC: Government Printing Office, January 25, 2008.

—. *The Depreciating Dollar: Economic Effects and Policy Response.* RL34582, Washington, DC: Government Printing Office, July 17, 2008.

Eichengreen, Barry. "Sterling's Past, Dollar's Future: Historical Perspectives on Reserve Currency Competition." Lecture, Economic History Society, Leicester, UK, April 10, 2005.

Eichengreen, Barry. "The Dollar Dilema: The World's Top Currency Faces Competition." *Foreign Affairs* 88, no. 5 (September/October 2009): 53-68.

European Central Bank. "Excess Returns on Net Foreign Assets: The Exorbitant Privilege From a Global Perspective." European Central Bank Working Paper NO. 1158, Frankfurt, Germany, February 2010.

European Central Bank. "The Accumulation of Foreign Reserves." European Central Bank Occasional Paper NO. 43, Frankfurt, Germany, February 2006.

Ferguson, Niall. "Complexity and Collapse: Empires on the Edge of Chaos." *Foreign Affairs* 89, no. 2 (March/April 2010): 18-32.

—. *The Ascent of Money: A Financial History of the World.* New York: Penguin Books, 2009.

Floud, Roderick, and Donald McCloskey. *The Economic History of Britain Since 1700: Volume 2: 1860 to the 1970s.* Cambridge: Cambridge University Press, 1981.

Frankel, Jeffrey A. "Still the Lingua Franka: The Exaggerated Death of the Dollar." *Foreign Affairs* 74, no. 4 (July 1995): 9-16.

Goldberg, Linda, and Cedric Tille. *The Internationalization of the Dollar and the Trade Balance Adjustment.* Staff Report. New York: Federal Reserve Bank of New York, 2006.

Gourinchas, Pierre-Oliver, and Helene Rey. "From World Banker to World Venture Capitalist: US External Adjustment and the Exorbitant Privilege." Paper presented at the National Bureau of Economic Research conference on G7 current account imbalances, Cambridge, MA, August 2005.

Greenspan, Alan. "The Euro as an International Currency." Remarks before the Euro 50 Group Roundtable, Washington, D.C., November 30, 2001.

International Monetary Fund. *Fiscal Monitor: Navigating the Fiscal Challenges Ahead.* Washington, DC: International Monetary Fund, 2010.

—. "International Monetary Fund Currency Composition of Official Foreign Exchange Reserves Database." http://www.imf.org/external/np/sta/cofer/eng/.

—. "International Monetary Fund World Economic Outlook Database." https://www.imf.org/external/pubs/ft/weo/2010/01/weodata/index.aspx.

Kennedy, Paul. *The Rise and Fall of the Great Powers.* New York: Vintage Books, 1989.

Krugman, Paul. "Vehicle Currencies and the Structure of International Exchange." *Journal of Money, Credit, and Banking*, 12, no. 3, (August 1980): 513-526.

Krugman, Paul. "Will There Be a Dollar Crisis." *Economic Policy*, July 2007: 437-465.

Kunz, Diane B. *The Economic Diplomacy of the Suez Crisis.* Chapel Hill: The University of North Carolina Press, 1991.

Kuznets, Simon. *Modern Economic Growth.* New Haven: Yale University Press, 1966.

Landefeld, J. Steven, Eugene P. Seskin, and Barbara M. Fraumeni. "Taking the Pulse of the Economy: Measuring GDP." *Journal of Economic Perspectives*, 22, no. 2 (Spring 2008): 193-216.

Laney, Leroy O. "The Reserve Role of the Dollar and the United States as Net Debtor." *Economic Review - Federal Reserve Bank of Dallas*, September 1998: 1-13.

Lynn, John A. "Nations in Arms 1763-1815." In *The Cambridge Illustrated History of Warfare*, by Geoffry Parker, 186-213. Cambridge: Cambridge University Press, 2008.

Madison, Angus. *The World Economy.* New Delhi: Organization for Economic Cooperation and Development, 2007.

Maizels, Alfred. *Industrial Growth and World Trade.* Cambridge: Canbridge University Press, 1963.

McKinsey Global Institute. *An Exorbitant Privilege? Implications of Reserve Currencies for Competitiveness.* Discussion Paper, Washington DC: McKinsey & Company, December 2009.

Mishkin, Fredrick S. *The Next Great Globalization: How Disadvantaged Nations Can Harness Their Financial Systems to Get Rich.* Princeton: Princeton University Press, 2006.

Mundell, Robert. "Commodity Prices, Exchang Rates, and the International Monetary System."Presentation, Food and Agriculture Organization of the United Nations, Rome, Italy, March 25-26, 2002, http://www.fao.org/docrep/006/y4344e/y4344e04.htm

Mussa, Michael. "Exchange Rate Adjustments Needed to Reduce Global Payment Imbalances." In *Dollar Adjustment: How Far? Against What?*, by C. Fred Bergsten and John Williamson, 113-138. Washington, D.C.: Institute for International Economics, 2004.

Oatley, Thomas. *International Polictical Economy: Interests and Institutions in the Global Economy.* New York: Pearson Education, Inc., 2008.

Reinhart, Carmen M, and Kenneth S Rogoff. "Growth in a Time of Debt." National Bureau of Economic Research working paper15639, Cambridge, MA, January 2010.

Rey, Helene. "International Trade and Currency Exchange." *The Review of Economic Studies 68, no. 2*, April 2001: 443-464.

Strange, Susan. *States and Markets.* London: Pinter Publishers, 1994.

—. "The Politics of International Currencies." *World Politics, 23, no. 2*, January 1971: 215-231.

Tavlas, George S. "The International Use of Currencies: The Dollar and the Euro." *Finance and Development 35, no. 2*, June 1999: 46-49.

Wolf, Martin. *Fixing Global Finance.* Baltimore, MD: The Johns Hopkins University Press, 2008.

World Trade Organization . *World Trade 2009, Prospects for 2010.* Geneva: WTO, 2010.